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ROPING THE WIND FOR TODAY'S POWER AND TOMORROW'S ENERGY SOLUTION





#### Montana is Wind Country

Montana Governor Brian Schweitzer is pushing for renewable energy standards that require public utilities to include renewable energy such as wind power, in the electricity they provide customers. The governor says the standards have helped create a boom in windpower proposals for the state, with several on the drawing board.







It's a New Day in Montana

# **MONTANA'S OBJECTIVES**

- Develop Montana's vast wind resource, rated number one in the nation utilizing class 3 wind and higher as the basis of comparison
- Combine clean renewable wind with conventional and advanced fossil power sources into a "green" energy package
- Create a domestic energy production economy in America's heartland
- Support all types of wind development from large scale wind farms to distributed generation serving individual farms, businesses and homes
- Advance the construction of electric transmission lines connecting wind resources in Montana to load centers in the western and eastern electric grid interconnections



**Governor Schweitzer** is the nation's first governor to endorse the national 25 x '25 initiative; a nation wide grass roots effort gaining widespread bipartisan support to pass federal legislation requiring 25% of US energy demand be supplied by renewable energy by 2025.

#### MONTANA DEMOGRAPHICS: AT-A-GLANCE

Land area: 145,552 squ Urban: 54%	are miles
Rural: 46%	
Population (2005): 935,6	70
Persons per square mile	: 6.4
Major Cities:	
Billings	77 Missoula 61,790
Great Falls 56,50	03 Bozeman
Butte	93 Helena

Gross state income (millions of current dollars): \$27,701 Total State Tax (2005): \$1,787,889,000 Rank: 47 Total Tax Per Capita: \$1,910 Rank: 35 Total Montana Exports: \$842.7 million \$278.0 million Wheat Industrial Machinery \$110.3 million Inorganic Chemicals \$75.3 million Paper and paperboard \$39.0 million Wood and Wood Products \$33.4 million Precious metals \$10.3 million

Civilian labor force: 483,043 Employed: 461,746 Total households: 358,667 Persons per household: 2.45 Per capita personal income (2005): \$29,387 Median household income (2004): \$35,201 Average wage per job: \$27,721

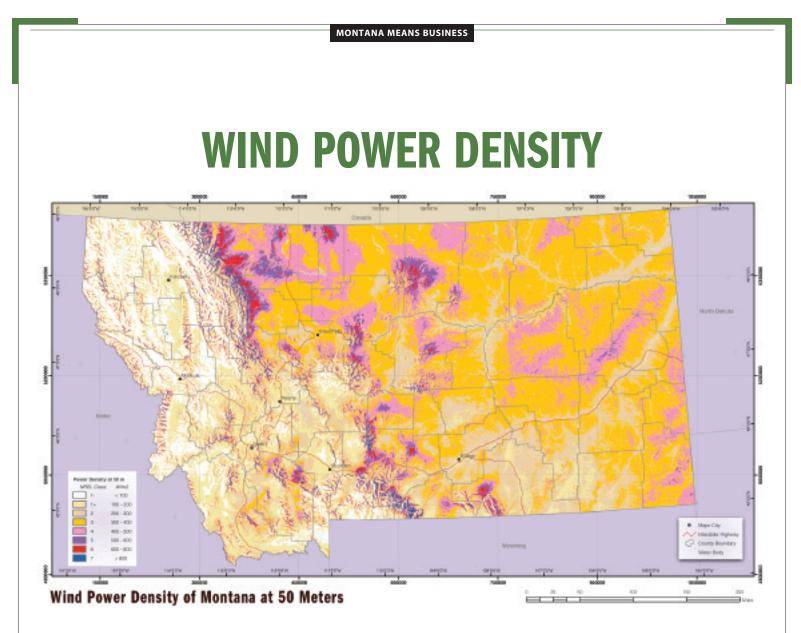
### **MONTANA'S ASSETS**

- Montana's vast wind resource is rated number one in the nation utilizing class 3 wind and higher as the basis of comparison
- Almost unlimited sites available on public and private lands including \_\_\_\_\_ acres of state owned land that can be acquired for wind development at low cost
- The Montana Department of Natural Resources and Conservation has program for wind energy exploration and development on State School Trust Land
- NIMBYS ?- most wind sites are sparsely populated, where folks welcome wind energy projects and need economic development
- Montana's Department of Environmental Quality posses wind data and permitting capacity that will facilitate development

### WIND PROJECTS

- **Judith Gap** (Wheatland County),135 MW, put on line in the spring of 2006, Montana's first large scale wind farm
- Numerous smaller distributed wind energy projects are disbursed across the state
- Projects in the planning stages:

Wind Hunter, 500 MW, (Valley County) Lake Basin, 120-150, (Stillwater County) Townsend (Broadwater County) Cut Bank (Toole County) Golden Sunlite, 35 MW, (Jefferson County) Rapelje/Reed Point, 300 (Stillwater County) Great Plains (Glacier County)



Maybe some information here about the physical resources and development potential?

#### **ENVIRONMENTAL CONSIDERATIONS**

Avian studies show impacts can be mitigated

- NIMBY's ? not many, wind resources are located in eastern Montana where visual impacts are minimal due to sparse population affected
- California, the west's primary energy market, is demanding imported electricity to be "green" with the adoption of a greenhouse gas (GHG) standard in 2005



Wind energy is free and produces zero GHG's

# **TRANSMISSION ISSUES**

Export paths are congested but new projects are being planned:

NorthernLights HVDC line (3,000 MW) Montana/Idaho – WECC Path 18 (1,000 MW) Frontier (3,000 MW) Montana Alberta Tie (500 MW)

- New corridors are currently being identified through federal processes
- Existing transmission lines are mapped, from 69 kV to 500kV
- Transmission expansion serving wind will serve other power needs



# **FEDERAL INCENTIVES**

- **Federal Production Tax Credit:** The Wind Energy Production Tax Credit (PTC), is a per kilowatt-hour tax credit for wind-generated electricity. Available during the first 10 years of operation, it provides 1.5 cents per kWh credit adjusted annually for inflation. The adjusted credit amount for 2005 is 1.9 cents per kWh.
- **Depreciation:** Double-declining balance, five-year depreciation schedule
- **Farm Security and Rural Investment Act of 2002** (Farm Bill): has several provisions for renewable energy.
- Public Utilities Regulatory Policy Act of 1978 (PURPA): was enacted as part of the National Energy Act of 1978, during a time of unprecedented energy supply instability in the United States. The law requires utilities to purchase energy from non-utility generators or small renewable energy producers that can produce electricity for less than what it would have cost for the utility to generate the power, or the "avoided cost."
- **Clean Renewable Energy Bonds:** An incentive for governmental bodies (including tribal governments), municipal utilities and rural electric cooperatives included in the 2005 energy bill.

### **STATE INCENTIVES**

Montana adopted a state renewable energy portfolio standard in 2005 requiring 15% renewable power by 2015

- 15-6-201(4) Property tax exemption for buildings using renewable energy
- **15-6-225** Property tax exemption for renewable generating facilities under 1 MW
- 15-24-1401 Property tax reduction for renewable generating facilities 1 MW or more
- 15-31-124 New or expanded industry tax credit
- 15-32-115
- 15-32-201 Tax credits for individuals installing nonfossil forms of generation
- 15-32-401 Alternative energy investment tax credit
- **15-72-104** Exemption from wholesale energy transaction tax
- 90-8-101 Tax credits for certified Montana venture capital companies

#### **MONTANA MEANS BUSINESS**





#### Governor's Office of Economic Development

PO Box 200801 Helena, Montana 59620-0801

#### 1-866-442-4968

www.business.mt.gov

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